UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,323	09/19/2003	Thomas E. Creamer	BOC9-2003-0019 (388)	7911

7590 11/13/2007

Gregory A. Nelson
Akerman Senterfitt
222 Lakeview Avenue, Fourth Floor
P.O. Box 3188
West Palm Beach, FL 33402-3188

EXAMINER	
DAILEY, THOMAS J	

ART UNIT	PAPER NUMBER
2152	

MAIL DATE	DELIVERY MODE
11/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/666,323	CREAMER ET AL.	
	Examiner	Art Unit	
	Thomas J. Dailey	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 August 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-11,13-26 and 28-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-11,13-26 and 28-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 7, 12, and 27 were canceled by the amendment received on August 13, 2007.
2. Claims 1-6, 8-11, 13-26, and 28-31 are pending.

Response to Arguments

3. Applicant's arguments filed August 13, 2007 have been fully considered but they are not persuasive.

4. The applicant has amended independent claims 1, 11, 16, 21 and 31. The applicant argues that Boukobza (US Pat. 6,122,664) fails to teach or suggest a ghost agent that is associated with a host software object. Specifically, the applicant contends Boukobza discloses a singe autonomous agent that is associated with a single node, grid, or device and therefore Boukobza's autonomous agent is not associated with a single host software object.

5. The examiner disagrees. Boukobza states an autonomous agent that associated with object types or to a particular domain (column 5, lines 13-18) and column 1, lines 33-39 discloses such object types include software objects.

6. Further the applicant argues with respect to claims 1, 11, 16, 21, and 31, that Putzolu (US Pat. 6,681,243) fails to teach the step of associating and moving

agents with another software object. Specifically, the applicant contends Putzolu does not suggest that agents can be associated with another software, and therefore that they are incapable of following a software object automatically.

7. The examiner disagrees. Putzolu was not relied upon in order to disclose associating agents with software objects (Boukobza was, as is illustrated the claim's rejections in this and the previous action). Boukobza teaches a method of monitoring nodes through associating agents with object types and Putzolu teaches that software objects are moveable. The association of Boukobza's agents to Putzolu software objects teaches the applicant's claimed invention. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Boukobza and Putzolu in order to create a validation method that utilizes mobile agents which allow for a decentralization of the method and thereby achieving the predictable result of more effective management of the network (Putzolu, column 2, line 64-column 3, line 9).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-6, 8-11, 13-26, and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boukobza et al (US Pat. 6,122,664), hereafter "Boukobza," in view of Putzolu et al (US Pat. 6,681,243), hereafter "Putzolu."

10. As to claim 1, Boukobza discloses a validation method comprising the steps of:

identifying a host within a grid environment, wherein said host is a software object, and wherein said grid environment comprises at least two distinct grids (column 4, lines 64-67, "agents are installed...in the nodes to be monitored");

associating a ghost agent with said host (column 4, lines 64-67 and column 5, lines 13-18, "An autonomous agent SAA is chiefly composed of a generic agent GA related to specific modules SM");

replicating actions of said host within said ghost agent (column 6, lines 30-34, "log files of the actions of each node monitored");

comparing data related to said replicated actions with validation data (column 8, lines 44-50, "the 'log' files SL to be scanned and the 'critical errors' to be searched for" (if the 'log' (replicated actions) contains 'errors' the actions are not valid));

generating validation output based upon said comparing step (column 8, lines 53-63, "if the error is found, the action specified is called").

But, Boukobza does not disclose moving both said host and said ghost agent from a first grid to a second grid.

However, Putzolu discloses using mobile agents in a grid environment and such agents being applications to diagnose, report, or correct network conditions (column 3, lines 59-61 and column 4, lines 17-23).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Boukobza and Putzolu in order to create a validation method that utilizes mobile agents which allow for a decentralization of the method and thereby achieving the predictable result of more effective management of the network (Putzolu, column 2, line 64-column 3, line 9).

11. As to claim 11, Boukobza discloses a system for validating data comprising:

a plurality of hosts, wherein said hosts are software objects distributed within a plurality of computing platforms within a grid environment comprising at least two distinct grids (column 4, lines 64-67);

at least one ghost agent associated with one of said hosts (column 4, lines 64-67 and column 5, lines 13-18), wherein said at least one ghost agent is further configured to compare validation data with data relating to said associated host (column 8, lines 44-50); and,

a validation application configured to manage validation operations performed by said ghost agents. (column 8, lines 44-63)

But, Boukobza does not disclose moving both said host and said ghost agent from a first grid to a second grid.

However, Putzolu discloses using mobile agents in a grid environment and such agents being applications to diagnose, report, or correct network conditions (column 3, lines 59-61 and column 4, lines 17-23).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Boukobza and Putzolu in order to create a validation method that utilizes mobile agents which allow for a decentralization of the method and thereby achieving the predictable result of more effective management of the network (Putzolu, column 2, line 64-column 3, line 9).

12. As to claim 16, Boukobza discloses a ghost agent comprising:

an interface for associating said ghost agent with a host (column 4, lines 64-67 and column 5, lines 13-18);

a validater configured to compare validation data with data relating to said host (column 8, lines 44-50); and,

a ghost controller for managing interactions between said ghost agent and a grid environment comprising at least two distinct grids (column 5, lines 8-18),

wherein each distinct grid comprises at least one computing platform (column 4, lines 36-39).

But, Boukobza does not disclose moving both said host and said ghost agent from a first grid to a second grid.

However, Putzolu discloses using mobile agents in a grid environment and such agents being applications to diagnose, report, or correct network conditions (column 3, lines 59-61 and column 4, lines 17-23).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Boukobza and Putzolu in order to create a validation method that utilizes mobile agents which allow for a decentralization of the method and thereby achieving the predictable result of more effective management of the network (Putzolu, column 2, line 64-column 3, line 9).

13. As to claims 21 and 31, they are rejected by the same rationale set forth in claim 1's rejection.

14. As to claims 2 and 22, Boukobza and Putzolu disclose the parent claims 1 and 21, and further disclose:

inputting at least one performance specification into said ghost agent, wherein said validation data comprises said performance specification (Boukobza, column 8, lines 44-67, the log is validated by the scan which uses parameters defined in column 5, lines 23-32); and,

determining at least one performance metric for at least one of said replicated actions, wherein said comparing step compares said performance metric with said performance specification (Boukobza, column 8, lines 44-67, parameters from the log are compared with wanted or expected values of parameters).

15. As to claims 3 and 23, Boukobza and Putzolu disclose the parent claims 1 and 21, and further disclose:

inputting at least one resource utilization specification into said ghost agent, wherein said validation data comprises said resource utilization specification (Boukobza, column 8, lines 44-67, the log is validated by the scan which uses parameters defined in column 5, lines 23-32); and,

determining at least one resource utilization metric for at least one of said replicated actions, wherein said comparing step compares said resource utilization metric with said resource utilization specification (Boukobza, column 8, lines 44-67, parameters from the log are compared with wanted or expected values of parameters).

16. As to claims 4 and 24, Boukobza and Putzolu disclose the parent claims 1 and 21, and further disclose:

inputting at least one load specification into said ghost agent, wherein said validation data comprises said load specification (Boukobza, column 8, lines 44-67, the log is validated by the scan which uses parameters defined in column 5, lines 23-32); and,

determining at least one load metric resulting from the execution of at least one of said replicated actions, wherein said comparing step compares said load metric with said load specification (Boukobza, column 8, lines 44-67, parameters from the log are compared with wanted or expected values of parameters).

17. As to claims 5, 14, 19 and 25, Boukobza and Putzolu disclose the parent claims 1, 11, 16, and 21, and further disclose:

executing a test routine (Boukobza, column 8, lines 44-67, the log is tested for errors via a scan);

generating test output for said test routine, wherein said validation data comprises said test output (Boukobza, column 8, lines 44-67); and,

determining output for at least one of said replicated actions, wherein said comparing step compares said replicated action output with said test output (Boukobza, column 8, lines 44-67).

18. As to claims 6 and 26, Boukobza and Putzolu disclose the parent claims 5 and 25, and further disclose inputting said test routine into said ghost agent (Boukobza, column 8, lines 44-67) and, executing said test routine within said ghost agent (Boukobza, column 8, lines 44-67).

19. As to claims 8 and 28, Boukobza and Putzolu disclose the parent claims 1 and 21, and further disclose identifying a location for recording validation output that is external to said ghost agent (Boukobza, column 8, lines 53-63, the action that is called is sent to "the object_id"); and, conveying said validation output to said identified location (Boukobza, column 8, lines 53-63).

20. As to claims 9 and 29, Boukobza and Putzolu disclose the parent claims 1 and 21, and further disclose determining whether said ghost agent satisfies validation criteria based upon said comparing step (Boukobza, column 8, lines 44-67); and, including a compliance indicator within said validation output based upon said determining step (Boukobza, column 8, lines 44-67, whether or not errors are found is the compliance indicator).

21. As to claims 10 and 30, Boukobza and Putzolu disclose the parent claims 1 and 21, and further disclose selecting a plurality of hosts; and, for each selected host, repeating said associating step, said replicating step, said comparing step, and

said generating step (Boukobza, column 4, lines 36-39, "monitor n machines"; column 5, lines 13-18, "An autonomous agent SAA...specific to an object type).

22. As to claims 15 and 18, Boukobza and Putzolu disclose the parent claims 11 and 16, and further disclose a validation data store configured to record validation output generated by said ghost agents (Boukobza, column 8, lines 44-67).

23. As to claim 17, Boukobza and Putzolu disclose the parent claim 16, and further disclose a ghost identifier configured to identify said ghost agent to components within said grid environment (column 4, lines 64-67 and column 5, lines 13-18).

24. As to claim 20, Boukobza and Putzolu disclose the parent claim 16, and further disclose means for disassociating said ghost agent from said host; and, means for associating said ghost agent with a different host (Putzolu, column 3, lines 59-61, "Agents...may execute on device or environment, move to another device or operating environment, and resume execution").

25. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boukobza in view of Putzolu as applied to claim 11 above, in further view of what is well known in the art.

26. As to claim 13, Boukobza and Putzolu disclose the parent claim 11, and although Boukobza and Putzolu does not explicitly suggest a validation interface configured to permit authorized users of said validation application to access features of said validation application Official Notice is taken (MPEP 2144.01) that restricting access to network management applications was a well-known in the art at the time of the applicant's invention was made, which is deployed to improve security and control for the administrator of the network. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to take advantage of a known practice to modify the teachings of Boukobza and Putzolu in order to achieve such benefits.

Conclusion

27. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

28. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is 571-270-1246. The examiner can normally be reached on Monday thru Friday; 9:00am - 5:00pm.

30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

31. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TJD
11/8/2007

/BUNJOB JAROENCHONWANIT/ 11/9/7
BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER